

### **REMARKS**

Claims 1-9, 11-28, 30-34, 44-49, 51-52, 55-64, 66-68 are now pending in the application. Claims 1-9, 11-28, 30-34, 44-49, 51-52, 55-64, 66 and 67 stand rejected. Claims 10, 29, 35-43, 50, 53-54 and 65 have been previously canceled. Claims 1, 22, 44, 52, 62 and 63 have been amended herein. Claim 68 is new. Support for the amendments and new claim can be found throughout the application, drawings and claims as originally filed and, as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments, new claim and remarks contained herein.

### **APPLICANTS' INTERVIEW SUMMARY**

Applicants thank the Examiner for speaking with the undersigned on Thursday, February 12, 2009. In this interview, the pending claims were discussed, along with the cited art. No agreement was reached during this teleconference and Applicants have submitted a Request for Continued Examination as discussed in this teleconference. In addition, Applicants submit herewith a Request for an Interview with the Examiner to discuss the claim amendments contained herein.

### **DOUBLE PATENTING REJECTION**

Claims 1-66 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-44 of copending Application No. 10/299,969. This rejection is respectfully traversed.

Applicants request that this provisional rejection be held in abeyance until claims have been allowed in at least one of the present Application or U.S. Patent Application No. 10/299,969.

**REJECTION UNDER 35 U.S.C. § 102**

Claims 1-34, 44-52 and 55-66 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Solomon (U.S. Pat. Pub. No. 2003/0018251; hereinafter "Solomon"). This rejection is respectfully traversed.

Solomon discloses a navigation system that is capable of tracking sensors on a lasso catheter 10 and an ablation catheter 11. Solomon teaches generating a movie of the beating heart using multiple images acquired from an imaging device, and superimposing the position of the catheters 10, 11 on the beating heart. Note that only the position sensors 12, 22 of the catheters 10, 11 are superimposed as indicators 12', 22' on the image data. In addition, note that the "roadmap" employed by Solomon consists of an image acquired to perform the procedure, and does not comprise any estimated or generated path through the anatomy. In other words, the "roadmap" of Solomon comprises solely an image of the cardiac tissue through which the procedure will be performed, and not an estimated or generated path through the anatomy. Solomon teaches guiding the lasso catheter 10 to a desired location within the heart and then guiding the ablation catheter 11 to a desired electrode on the lasso catheter 10 to ablate a desired location within the heart, using the acquired "roadmap" image. In contrast to the teachings of Solomon, independent Claim 1 recites:

...a controller in communication with said anatomical gating device, said imaging device and said tracking device

to register said image data with the region of the patient in response to said physiological event, said controller further superimposes an icon representing the instrument onto the image data of the region of the patient, based upon the position tracked by said tracking device, and said controller provides an estimated optimized site to navigate the instrument with the **estimated optimized site** represented as **a separate icon superimposed onto the image data**; and

a display that displays the image data of the region of the patient with the **superimposed icon of the instrument and the superimposed icon of the estimated optimized site** (emphasis added).

In view of the above discussion, Applicants respectfully assert that the cited art does not teach, suggest or disclose each and every element of independent Claim 1. Rather, Solomon discloses merely displaying indicators 12', 22' superimposed on a image data, which represent only the location of the position sensors coupled to the instrument within the anatomy. Solomon does not teach, suggest or disclose the display of an icon superimposed on the image data that represents the instrument and the display of a separate icon superimposed on the image data that represents an estimated optimized site on the image data. Accordingly, for at least these reasons, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claim 1.

With respect to independent Claim 22, note that independent Claim 22 recites:

...a controller that tracks the position of the instrument with said tracking device and receives the sensed physiological parameter from said sensor, said controller further estimates the optimized site and **superimposes an icon representing the location of the optimized site, an icon representing a path through the anatomy to the optimized site and an icon representing the instrument**, based on the sensed physiological parameter and on the position of the instrument;

a display that displays the **icon of the estimated optimized site, the icon of the path to the optimized site** and the **icon representing the instrument** in the patient; and

wherein the optimized site is an optimized **lead placement site for coupling a cardiac lead** to a coronary sinus region (emphasis added).

In view of the above discussion, Applicants respectfully assert that the cited art does not teach, suggest or disclose each and every element of independent Claim 22. Rather, Solomon discloses merely displaying indicators 12', 22' superimposed on image data, which represent only the location of the position sensors coupled to the instrument within the anatomy. Solomon does not teach, suggest or disclose the display of an icon that represents a path through the anatomy to the optimized site or that the optimized site is an optimized lead placement site for coupling a cardiac lead to a coronary sinus region. Accordingly, for at least these reasons, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claim 22.

Regarding independent Claim 44, note that independent Claim 44 recites:

...tracking an instrument within an anatomy;  
...registering the captured image data to the patient  
and the tracked instrument during the physiological event;  
...displaying the ultrasound image data from a virtual  
**viewpoint of the tracked instrument within the anatomy**  
(emphasis added).

In view of the above discussion, Applicants respectfully assert that the cited art does not teach, suggest or disclose each and every element of independent Claim 44. Rather, Solomon discloses merely acquiring an ultrasound image with an ultrasound probe external to the anatomy, and displaying the acquired ultrasound image to enable

the surgeon to guide the instruments 10, 11 within the anatomy. Note that Solomon does not teach, suggest or disclose displaying the ultrasound data from a virtual viewpoint of the tracked instrument within the anatomy as claimed. Accordingly, for at least these reasons, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claim 44.

With regard to independent Claim 52, note that independent Claim 52 recites:

...**delivering a cardiac lead** to the optimized site;  
and... (emphasis added).

In view of the above discussion, Applicants respectfully assert that the cited art does not teach, suggest or disclose each and every element of independent Claim 52. Rather, Solomon discloses performing an ablation procedure at a location near an electrode 14 of a lasso catheter 10. Thus, at best, Solomon discloses delivering ablation energy to a site in the anatomy, and not delivering a cardiac lead to an optimized site, as claimed in Claim 52. Accordingly, for at least these reasons, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claim 52.

With respect to independent Claim 63, note that independent Claim 63 recites:

...a controller in communication with said anatomical gating device, said imaging device and said tracking device and operable to synchronize captured image data of the region of the patient in response to a physiological event, said controller further operable to register said synchronized image data of the region of the patient in response to said physiological event and to provide an estimated optimized site to navigate the instrument to, said controller further operable to superimpose an icon representing the instrument on to the image data of the region of the patient, based upon the position tracked by said tracking device, to **superimpose an icon of the estimated optimized site** on to the image

**data of the region of the patient and to superimpose a path for the instrument to navigate to reach the estimated optimized site onto the image data; and... (emphasis added).**

In view of the above discussion, Applicants respectfully assert that the cited art does not teach, suggest or disclose each and every element of independent Claim 63. Rather, Solomon discloses merely displaying indicators 12', 22' superimposed on image data, which represent only the location of the position sensors coupled to the instrument within the anatomy. Solomon does not teach, suggest or disclose the display of an icon that represents a path through the anatomy to the optimized site. Accordingly, for at least these reasons, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claim 63.

Accordingly, in view of at least the above discussion, Applicants respectfully submit that the cited art does not teach, suggest or disclose each and every element of independent Claims 1, 22, 44, 52 and 63, and thus, Applicants respectfully request the Office to reconsider and withdraw the rejection of independent Claims 1, 22, 44, 52 and 63 under 35 U.S.C. § 102(e). In addition, since Claims 2-9, 11-21, 23-28, 30-34, 45-49, 51, 55-62, 64 and 66 depend directly or indirectly from independent Claim 1, 22, 44, 52 or 63, Claims 2-9, 11-21, 23-28, 30-34, 45-49, 51, 55-62, 64 and 66 should be in condition for allowance for at least the reasons set forth for Claim 1, 22, 44, 52 and 63, above. Accordingly, Applicants respectfully request the Office reconsider and withdraw the rejections of Claims 2-9, 11-21, 23-28, 30-34, 45-49, 51, 55-62, 64 and 66 under 35 U.S.C. § 102(e).

#### **NEW CLAIM**

Applicants have added new Claim 68. Applicants note that support for this claim can be found throughout the specification and drawings as originally filed, in at least paragraph [0128] of the specification as originally filed, and thus, this claim does not add new matter. Further, new Claim 68 is believed to be in condition for allowance as the cited art does not teach, suggest or disclose a controller that determines if the instrument can navigate the anatomy and a display that displays a notification to select a different instrument if the selected instrument cannot navigate the anatomy. Prompt and favorable consideration of this new claim is hereby respectfully requested.


#### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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